REMARKS

Claims 1-20 were examined and reported in the Office Action. Claims 1-4, 11, 17 and 18 are rejected. Claims 1-4, 11 and 17-18 are amended. Claims 1-20 remain.

Applicant requests reconsideration of the application in view of the following remarks.

I. Election/Restrictions

It is asserted in the Office Action that claims 1-4, 11 and 17-18 are directed to an invention that is independent or distinct from the invention originally claimed. Applicant's amended claims 1 and 17 are directed to the elected species. Support for the amendments is recited in Applicant's original specification on page 11 at lines 6-19.

II. Claims Rejected Under 35 U.S.C. 112, first paragraph

It is asserted in the Office Action that claims 1-4, 11, and 17-18 are rejected under 35 U.S.C. § 112 first paragraph, as failing to comply with the written description requirement. Applicant has amended claims 1 and 17 to overcome the 35 U.S.C. § 112 first paragraph rejections.

Accordingly, withdrawal of the 35 U.S.C. § 112 first paragraph, rejections are respectfully requested.

III. 35 U.S.C. 102(e)

It is asserted in the Office Action that claims 1-4 and 11 are rejected under 35 U.S.C. § 102(e), as being anticipated by U. S. Patent No. 6,578,145 issued to Hou ("Hou"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2131,

> '[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' (Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir.

> 1987)). 'The identical invention must be shown in as complete detail as is contained in the ... claim.' (Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, *i.e.*, identity of terminology is not required. (In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)).

Applicant's claim 1 contains the limitations of

> voltage-time conversion circuits which are arranged adjacent to said respective plurality of sensors and change output levels upon the lapse of times corresponding to output voltage values from said plurality of sensors after a conversion operation start point in order to convert voltage outputs of said plurality of sensors into times; and sensed data generation circuits for outputting, as digital data, lapse times until the output levels of said voltage-time conversion circuits change after a conversion start point, said sensed data generation circuits include a counter for counting a clock signal, wherein the counter is capable of operating independently of a pixel array and a maximum value of the counter is capable of being arbitrarily adjusted.

Hou discloses an image sensor that converts light intensity signals to digital signals without using A/D converters. Distinguishable, in Applicant's claimed invention the voltage-time conversion circuit changes its output level after a time corresponding to output voltage, which is analog data output from the sensor, has lapsed from a predetermined conversion operation start point of time and outputs one bit digital data. This enables long-distance propagation of a signal as one digital signal of H level or L level via a data bus. Therefore, precision of the data is prevented from being degraded.

Moreover, Hou does not teach, disclose or suggest "the counter is capable of operating independently of a pixel array and a maximum value of the counter is capable of being arbitrarily adjusted."

Therefore, since Hou does not disclose, teach or suggest all of Applicant's amended claim 1 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(e) has not been adequately set forth relative to Hou. Thus, Applicant's amended claim 1 is

not anticipated by Hou. Additionally, the claims that directly or indirectly depend on claim 1, namely claims 2-4 and 11, are also not anticipated by Hou for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 102(e) rejections for claims 1-4 and 11 are respectfully requested.

IV. 35 U.S.C. 103(a)

It is asserted in the Office Action that claims 17 and 18 are rejected in the Office Action under 35 U.S.C. § 103(a), as being obvious over "*A Digital Camera for Machine Vision*", Conference on Industrial Electronics, Control and Instrumentation, 1994, by A. Simoni et al ("Simoni") in view of Hou. Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2142

> [t]o establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." (In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Further, according to MPEP §2143.03, "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). *All words in a claim must be considered* in judging the patentability of that claim against the prior art. (In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970), emphasis added.)"

Applicant's claim 17 contains the limitations of

> a column decoder for selecting at once a plurality of pixels aligned on an arbitrary column from pixels arrayed in a matrix;... a counter for sequentially outputting count values in accordance with internal count operation; ...wherein ... the counter is capable of operating

independently of the matrix and a maximum value of the counter is capable of being arbitrarily adjusted.

Simoni discloses a digital camera to be used in machine vision applications. Hou discloses an image sensor that converts light intensity signals to digital signals without using A/D converters. In Applicant's claimed invention, however, the voltage-time conversion circuit changes its output level after a time corresponding to output voltage, which is analog data output from the sensor, has lapsed from a predetermined conversion operation start point of time and outputs one bit digital data. This enables long-distance propagation of a signal as one digital signal of H level or L level via a data bus. Therefore, precision of the data is prevented from being degraded. Additionally, Applicant's claimed invention easily realizes conversion precision adjustment corresponding to sensitivity adjustment of the A/D converter, and effectively uses the data width of output data.

Moreover, neither Simoni, Hou, and therefore, nor the combination of the two teach, disclose or suggest "the counter is capable of operating independently of the matrix and a maximum value of the counter is capable of being arbitrarily adjusted." Since neither Simoni, Hou, and therefore, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant's amended claim 17, Applicant's amended claim 17 is not obvious over Simoni in view of Hou since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claim that directly depends from amended claim 17, namely claim 18, would also not be obvious over Simoni in view of Hou for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejections for claims 17 and 18 are respectfully requested.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-20 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

PETITION FOR EXTENSION OF TIME

Per 37 C.F.R. 1.136(a) and in connection with the Advisory Action mailed on October 30, 2006, Applicant respectfully petitions the Commissioner for a one (1) month extension of time, extending the period for response to May 5, 2007. The Commissioner is hereby authorized to charge payment to Deposit Account No. 02-2666 in the amount of $120.00 to cover the petition filing fee for a 37 C.F.R. 1.17(a)(1) large entity. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: April 26, 2007

By: _____
Steven Laut, Reg. No. 47,736

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted electronically via EFS Web on the date shown below to the United States Patent and Trademark Office.

_____
Jean Svoboda Date: April 26, 2007